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ABSTRACT

A study examined how teacher educators' goals, objectives, and class procedures were affected by using portfolios to promote critical thinking about teaching and learning, and how these instructional decisions were mediated and negotiated by the socio-professional context. Six teacher educators implementing a pilot portfolio program recorded their reflections and responded to one another in a common journal (a "polylog"), in which each shared information and insights about instructional decisions, feelings, students' responses, and continued professional reading as the portfolios were being developed and evaluated. These transactions were analyzed collaboratively by the six researchers who used reflexive data analysis techniques and analytic induction to generate categories and other emerging patterns. The students' portfolios were analyzed by each professor for evidence of reflective growth and practice using the same methods. A model representing three concurrent, interrelated, and overlapping dimensions was developed: (1) instructional reflection and decision-making by each teacher (inquiring, futuring, acting, remembering); (2) collaborative, reciprocal links among the colleagues who are each involved in that process; and (3) spiraling, recursive cycles of increased risk-taking, both by the individual teachers and by groups. Findings suggest that the primary contribution of the model is its integration of collegial collaboration with a reflective teaching cycle, which is usually thought of as an individual decision-making process. (One figure representing the model is included, and 26 references are attached.) (RS)

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Transforming Teaching and Learning Through Collaboration

Running Head: TRANSFORMING THROUGH COLLABORATION

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Transforming Teaching and Learning through Collaboration

This study began as a part of a larger exploration by several teacher educators at our university to examine ways to promote reflection among our students. We wanted our students to think about what they were learning, connecting to what they had learned in earlier courses and thinking how these concepts might be put into practice. We felt that portfolios would be a good way to help our students participate in that process. By selecting documents and artifacts demonstrating their best work over the course of their professional training, they would, we felt, be encouraged to reflect about those connections. An additional bonus for our students would be the actual portfolio which could be used as an interviewing tool.

As we began to implement this pilot portfolio program, we talked about how to structure our classes to support portfolio development. We realized that we could not ask our students to reflect on their own learning and future practice if we were not able to examine our own practice. It was this revelation which led to this secondary study of the implementation of portfolios as a tool in teacher education classes. Six of us decided to record our reflections and respond to one another in a common journal, which we called a "polylog." Each of us shared information and insights about our instructional decisions, our feelings, our students' responses, and our continuing professional reading, and we also responded to one another in the margins of the log. We soon found ourselves immersed in a collaborative, collegial network which supported our risk-taking and which mediated our learning, a process we now find sobering in its potential for sparking and sustaining professional and programmatic change.

The Polylog as a Tool for Collaborative Reflection

The polylog was our chosen tool for recording our instructional decisions and reflections. Schon (1983) indicates that both the teacher and students in a professional program would benefit from the teachers' reflections on his decisions and his actions, that those reflections-on-practice could make the expert practitioner's knowledge less mysterious and more accessible to the learner. Second, Schon notes that thinking and action are mutually supportive:

> Each feeds the other, and each sets boundaries for the other. It is the surprising result of action that triggers reflection, and it is the production of a satisfactory move that brings reflection temporarily to a close. It is true, certainly, that an inquirer's continuing conversation with his situation may lead, open-endedly, to renewal of reflection. . . Continuity of inquiry entails a continual interweaving of thinking and doing. (p. 280)

Finally, Schon also points to the advisability of groups of practitioners reflecting together: [The reflective practitioner] "is unlikely to get very far unless he wants to extend and deepen his reflection-in-action, and unless others help him see what he has worked to avoid seeing" (p. 283). The polylog and our informal conversations functioned in this way for us. Although the polylog by no means recorded every transaction and reflection concerning portfolios, it did trace our individual and collective reflections. Because of the social nature of the polylog, all of us were able to examine our own decisions through the eyes of our colleagues.

Schon also verbalizes the uncertainty we experienced at the beginning of this project: "Whereas he (the reflective practitioner) is ordinarily expected to play the role of expert, he is now expected from time to time to reveal his uncertainties. Whereas he is ordinarily expected to keep his expertise private and mysterious, he is now expected to reflect publicly on his knowledge-in-practice, to make himself confrontable by his clients" (p. 299). Though we have not yet asked our students to join us in the polylog, the process did make us more confrontable by our colleagues, which was perhaps even riskier than Schon implies.

Our decision to write our reflections in a journal format is grounded in the research of Calkins (1990) and Zinsser (1987), among others. We see writing and reading as unique

processes which support learning. Writing made our reflections concrete and accessible for future response and analysis. In the process of writing, we made new realizations and were forced to articulate observations and responses which might have gone unexpressed and unexamined. As the research says, we used writing as a tool both for reflection and for learning. Together, through our written reflections and responses in the polylog, we were prepared to explore our students' responses and to make changes in our courses according to what we found.

The Study

Our purposes for this study were two-fold. First, we wanted to examine how the professors involved in the study grew in terms of their own theory and practice. Second, we wanted to examine the group dynamics, the interpersonal transactions, which occurred as a part of this change. These questions guided the focus of our inquiry: How are the professors' goals, objectives, and class procedures affected by the inclusion of the portfolio as a tool designed to promote critical thinking about learning and teaching? How are these instructional decisions mediated and negotiated by the socio-professional "contexture" (Robbins, 1990)?

Naturalistic methodology employing several sources of information was used to facilitate examination of these questions. Beginning in April, 1991, the polylog was passed among the professors, each reading and responding to entries made by other faculty and then including his or her own entry. In this log professors recorded their personal thoughts, feelings, and comments as the portfolios were being developed and evaluated. These transactions were analyzed collaboratively by the six researchers who used reflexive data analysis techniques (Ruby, 1982) and analytic induction (Goetz & LeCompte, 1984) to generate categories and other emerging patterns. In addition to the polylog, professors' course documents which indicate the requirements for the portfolios and manner in which the portfolios were included in the course were also circulated among the faculty for analysis. The portfolios (the students' selected pieces and their accompanying rationale statements for inclusion in the portfolio) were analyzed by each professor for evidence of reflective growth and practice using the same

methods previously mentioned. Finally, in early November, 1991, each professor wrote a reflexive narrative of instructional decisions, insights, and changes which had occurred during the preceding months.

Patterns of Group Transactions: Collaborative Transformation

In The Reflective Practitioner (1983), Schon describes the complexities of inquiry, theory-building, and practice in the work of the reflective practitioner:

> When someone reflects-in-action, he becomes a researcher in the practice context. He is not dependent on the categories of established theory and technique, but constructs a new theory of the unique case. . . He does not keep means and ends separate, but defines them interactively as he frames a problematic situation. He does not separate thinking from doing, ratiocinating his way to a decision which he must later convert to action. Because his experimenting is a kind of action, implementation is build into his inquiry. (p. 68-69)

That describes our intent as we explored the uses of the portfolio as an assessment tool in teacher education courses, but it does not capture the social nature of our process as we worked collaboratively to transform our instruction. The model in Figure 1 is an attempt to capture the complexity of our intrapersonal and interpersonal transactions (Rosenblatt, 1985) in a two-dimensional model.

Insert Figure 1 about here

This model represents three concurrent, interrelated, and overlapping dimensions: 1) instructional reflection and decision-making by each teacher (inquiring-futuring-acting-remembering); 2) collaborative, reciprocal links among the colleagues who are each involved in that process; and 3) spiraling, recursive cycles of increased risk-taking, both by the individual teachers and by groups. The primary data source for the first two dimensions was the polylog. The categories in the third dimension emerged in the analysis of the reflexive narrative that each of us completed in an attempt to capture our changes over the course of the research.

Instructional Reflection and Decision-Making

This first dimension seems to include four primary processes: inquiring; futuring; acting; and remembering. Of course, in real time, those processes overlap, and an individual's participation in the cycle is both recursive and reflexive. Individuals participate in the process in unique ways, and the group also moves through the process collectively.

Beginning with **Inquiring** (this is an arbitrary "beginning"), we, as individuals and as a group, gather information about portfolio development from sources outside the network, such as published material and our students' comments or their products. We also receive input through our **Collaborative Links**. Through those links, our network colleagues help us make connections, remind us, extend our thinking, request more information from us, gently sanction us when we go too far afield, invite us to participate or join in their inquiry, and help us to feel safe enough to disclose our feelings about our fears and our instructional decisions.

Futuring is the process in which we said "what if." What if it is done this way instead of that way? What will happen? What might my students' reactions be? We hope; we plan; we wonder; we inference; and we think aloud (and on paper). We do this individually, but it becomes much more powerful within the collaborative framework because colleagues provide constructive evaluation of ideas before implementation; we draw on multiple experiences instead of one frame of reference. Colleagues support and encourage our futuring process by making comments such as "good idea", "I might like to try that." Colleagues keep us on target through comments such as "Have you thought about it from this point of view?" or "I tried that and my experience was. . ."

Eventually we came to the point when we were ready to **Act** on our **Inquiring** and **Futuring**. **Acting** takes two distinct forms. We take action as individuals, supported by collegial relationships, as reflected in our instructional decisions or through solitary professional presentations. But action also is collaborative. Individual and group action is fueled by **Collaborative Links,** and action results in products or artifacts. Course syllabi

and manuscripts submitted for publication are two examples of products directly changed by or resulting from our collaborative action. The denouement of action is **Remembering**.

Remembering involves the analysis and interpretation of instructional decisions and actions, student responses, and the analysis and evaluation of the match between one's educational beliefs, history, goals, and instructional practice. Remembering becomes, then, the basis for further information gathering, inquiring, and eventual planning for action. Again, **Collaborative Links** serve to support our teaching/learning process. The following are excerpts drawn from the polylog which demonstrate the processes described in the preceding paragraphs:

Inquiring

These are my first impressions [regarding student responses to the portfolios]. 1. All the students seemed to make thoughtful choices and thorough selection reflections. 2. Their selections varied widely, including these things: a. Excerpts from their journals... (Leslie)

I'm going to try portfolios in a different way from Leslie... (Bess)

Futuring

Perhaps they can make a list of the items so the whole class will get a taste of different kinds of items.(Bess)

I need to study this more before I decide how to handle that aspect. (Genevieve)

I am looking forward to the portfolio party on the 25th - it will be a first opportunity to see where one 568 class is on pf's vs. this terms's group.(Phil)

I wonder if, when we are more convinced of the value of portfolios, we will be able to let something else go to make time for conferences.(Leslie)

Acting

This summer I will deal with alternative assessment at the beginning of the six weeks. I just can't decide whether I should tell them about the portfolio assignment at the beginning or wait and let it be a true reflection.(Genevieve)

I basically told them that we would be accumulating portfolio type information and that I wanted them to begin to locate a student.(Phil)

I gave them full credit. Well, except for 2 or 3 students for whom it was clear they had 'reflected' in the car on the way to class.(Mary)

Remembering

...of course, this kind of decision-making by me is really not the best for what I envision as a pf, but I'm stuck with it this semester. (Joan)

They have taken the assignment in stride, even though it's open-ended.(Leslie)

One thing that I have done this semester that I feel good about is talking with the 370 students about fundamental differences--synthetic vs. analytic, deductive vs. inductive,...(Mary)

Collaborative Links

The **Collaborative Links** became apparent as we analyzed the interpersonal transactions recorded in the polylog, and after we identified them in the polylog, we began noting them in our informal conversations. It was those links which served to energize us as we worked through the cycle; collaboration seemed to reduce the time it took an individual to go from reflection to action; it enabled colleagues to scaffold new knowledge and new behavior for each other; it provided constructive evaluative feedback; it supported increased risk-taking by individuals and by the group; it built trust and a sense of shared mission; and it seemed to improve the quality of the resulting actions.

The following excerpts from the polylog illustrate these **Collaborative Links**:

Connecting

But Genevieve has given me some good ideas--stopping the class, asking them to turn to their neighbor,...(Leslie)

Since we are at the stage of identifying patterns, I'm attempting to construct continuums [sic] and dichotomies. Here are some of the patterns that seem to run through the project...process vs. product, ...(Phil)

Disclosing

I am definitely uneasy about implementing this plan, particularly the evaluation of the portfolios.(Bess)

I know I still have much to learn about this. (Genevieve)

Inviting

What do you think? And how should the portfolios be evaluated then...(Bess)

After what you saw in the portfolios, I think that it would be a good idea to have another faculty review them. (Mary)

Valuing

I liked Mary's focus on "reader friendly" portfolios. (Leslie)

I liked this idea. (Genevieve)

Sanctioning

Why grade them? What message are we sending them if we feel it necessary to grade these?(Leslie)

Bad-Bad-Bad.(Joan)

Reminding

I can't find the question.(Joan)

But there you go again, focusing on outcomes and products. (Phil)

Assisting

Can we do self-assessment with the students on 4/29 meeting? (Phil)

Requesting

Please share when it comes in.(Mary)

Leslie, could I get copies of your 485 handout? (Genevieve)

Extending

And how can we get that information? (Mary)

The depth and spread of the Pf's may be related to the long-term exposure to school kids and classroom learning-their growth as a teacher who comes to feel at peace and confident as a professional. (Phil)

Clarifying

This is a process - of decision-making and evaluation (as they have to write and analyze their products and...(Joan)

I've also addressed our relatively homogenous reading faculty - the pros and cons, what that means to them now and what they might find when they teach. (Mary)

We have identified several conditions which were present in our working relationships prior to the beginning of this study which have influenced the nature of the collaborative links categories. The first condition for collaborative work was the mutual agreement that the whole is larger than the sum of its parts, that collaborative effort is worth the considerable investment of time and energy. There was also a high level of trust among the members of our collaborative network. All members of the collaborative viewed themselves and each other as learners. We doubt whether the collaborative would function if individuals view themselves primarily as "experts" or "leaders of the group". A non-competitive environment was also critical to the success of the working model. Finally, the participants valued each other as individuals and also as capable team members.

Increased Risk-taking

The model in Figure 1 can be viewed as a two-dimensional model representing the reflective teaching cycle and the collaborative links, but to fully appreciate its complexity and to fully understand our experiences over time, rotate the circle on its vertical axis, making a cylinder. The length of the cylinder represents increased risk-taking and the evolution of our theoretical understandings and our actions over time. The narratives which each of us wrote approximately eight months after the initiation of the polylog revealed this developmental pattern in each of the participants, as well as in our collective decisions and actions: framing a problem; tentativeness about actions; need to know; low level risk-taking action; reflection; and higher level risk-taking action. This higher level risk-taking was either followed by further risk-taking on the same problem or a re-framing and a renewed tentativeness, need to know, risk-taking, etc. Each of the participants moved through this process individualistically, but

these patterns recurred in all the narratives. The following excerpts from reflexive narratives written by two of the participating professors illustrate the individualistic, developmental nature of our experience.

Excerpts from Phil's narrative.

> ...I have been dissatisfied for some time and searching for vehicles which would make the assessment process more continuous, more teacher involved, and more interactive and collaborative with the student and parents. I began to read articles and accumulate handouts and literature resources on qualitative assessment, process aspects of learning, and portfolios... I began to discuss the need for such assessments and found myself devoting more time to methods such as miscue analysis, Burke Interviewing, keeping a Graves writing folder, etc. ... I also had occasions to do a number of presentations at professional meetings ...involving qualitative aspects of learning.... I found special education audiences to be receptive and intrigued by these methods... In a graduate course in learning disabilities, SPD 568... the students explored the concept of portfolios and what they could learn about their students through them. For myself, I had moved beyond the tentative stage at that time and was engaging in low-level risk-taking ... One of my future goals is that my networking will extend beyond the university confines and into closer ties with teachers and other educators. How have I changed? Three aspects can be identified: I am becoming more outspoken about the lack of critical theory and belief systems which should be guiding the classroom practices of teachers. [Second], my professional development has turned down a road toward exploring topics of qualitative change, critical theory, and reflective teaching. (I am continually taken aback by the vast wealth of information and resources with which I am unfamiliar.) [Finally], I am beginning to keep my own logs, journals, and personal reference points. The importance of conducting *personal dialogues* with myself about whether or not I am achieving personal and professional goals, uniting theory and practice, etc. has become evident for me.

Excerpts from Joan's narrative.

> My courses emphasized 1) collaborative learning, 2) reflection and written responses and 3) student ownership. . .Portfolios and portfolio assessment would be the most natural of extensions--an obvious 'next step.' My social studies methods class seemed the place to begin. . . I was enthusiastic! I sat down to plan and work with my syllabus to implement portfolios. But almost immediately, I had my first doubts. . .After several attempts, I felt frustrated and confused that I could not seem to manipulate the course content to better fit what I believed a portfolio should reflect.Why was this so difficult?
>
> As the semester progressed, I shared these concerns through the polylog and continued to wrestle with these many issues. (To my surprise, the students seemed to find it not nearly as complex as I did!) Then as time passed, I began to confront more realistically my preconceived notions about my teaching. Even though I espoused collaborative experiences, reflection and empowerment for the learner, I still kept control in a way I had not realized. All of my struggles over the implementation of portfolios were over this issue. I simply did not know how to give up this control!

> Over the summer these insights promoted more risk-taking, and by fall I was ready to match my actions to my theory about learning. These students could do all the choosing! They could assess their portfolios! The portfolio project helped me grow within a community of learners. And facing oneself honestly never seems to be easy!

Implications of the Model for Collaborative Transformation

As this model emerged from our data analysis, it became obvious that it is similar to other models for reflective teaching. A glance at the literature indicates that the basic components of this model are not new. Glickman advocates action research as a method of staff development and campus decision-making (1985); Clark and Yinger focus on teacher planning (1987); Killion and Todnem (1991) describe reflection as a process for personal theory building; Patterson and Shannon (in press) discuss teacher research as an inquiry/action/reflection cycle; and Stephens and her colleagues (1990) talk about teaching as response. In fact, the basic components of our model remind us of Dewey's description of the scientific method and Goodman's description of proficient silent reading process (Goodman & Burke, 1980). Peter McLaren (1991) focuses, not on inquiry and action but on the reflection and projection components of this model when he speaks of "redemptive remembrance" and "social dreaming" (p. 39) as comparable to Paulo Freire's notion of critical reflection.

The primary contribution of our model is its integration of collegial collaboration with this reflective teaching cycle, which is usually thought of as an individual decision-making process. The collaborative links recorded in the polylog were instrumental in supporting and energizing each of us as we participated in the reflective teaching cycle. This kind of collaboration is supported in Schon's work (1983) and in what Glickman calls "collaborative supervision" (1985, p. 80). We are discovering that these collaborative links among reflective colleagues may push the reflective teaching process into a kind of hyperdrive, a generative process which we are beginning to see as critical pedagogy. We recognize two characteristics of critical pedagogy in our collaboration at this point: Our changing relationships with our students and our increased commitment to individual transformation and to program reform.

Our participation in this project has, in some ways, changed our perceptions of our roles as teachers; and, therefore, our expectations about our students' roles. Schon calls this the "social contract" between the practitioner and client (p. 300). He details the shift from the traditional contract, in which the expert practitioner is assumed to have all the power and all the answers for the passive client, to the reflective contract, in which the reflective practitioner reveals his uncertainties, attempts to make connections to the client's thoughts and feelings, and to work collaboratively with the patient toward mutually negotiated goals. Without exception, all of us are dealing to some extent with this issue of student control.

A second focus which echoes critical pedagogy is our increasing attention to the transformation of our personal theories and practice, as well as the revision of our undergraduate and graduate programs. Smyth's (1989) discussion articulates our new focus on critical reflection rather than on reflection as a value-free decision-making process. Whereas other researchers have talked about reflective decision making in terms of using predetermined categories to analyze classroom situations in order to make appropriate choices, Smyth suggests that there are four steps in critical reflection: informing; interpreting; confronting; and transforming. This reflective process is open-ended, and it facilitates critical analysis of the status quo in order to reframe the questions and facilitate professional growth. During the course of this research, we have noted dramatic changes in our course syllabi, in our transactions with students, in our participation on curriculum and policy committees, and in the use of portfolios by professors in other departments on campus. We are currently planning to invite other colleagues into this collaborative work.

Our focus, like Smyth's, is professional reflection with the intent to change our teaching and our theoretical understandings, but our reflection, transformation, and learning have become collaborative. Our collaborative exploration of portfolio assessment in our courses has served as a vehicle for our continuing professional growth. According to Peter McLaren (1991) that collaboration connects us to the evolving tradition of critical pedagogy: "Critical

reflection is a social act of knowing undertaken in a public arena as a form of social and collective empowerment" (p. 35).

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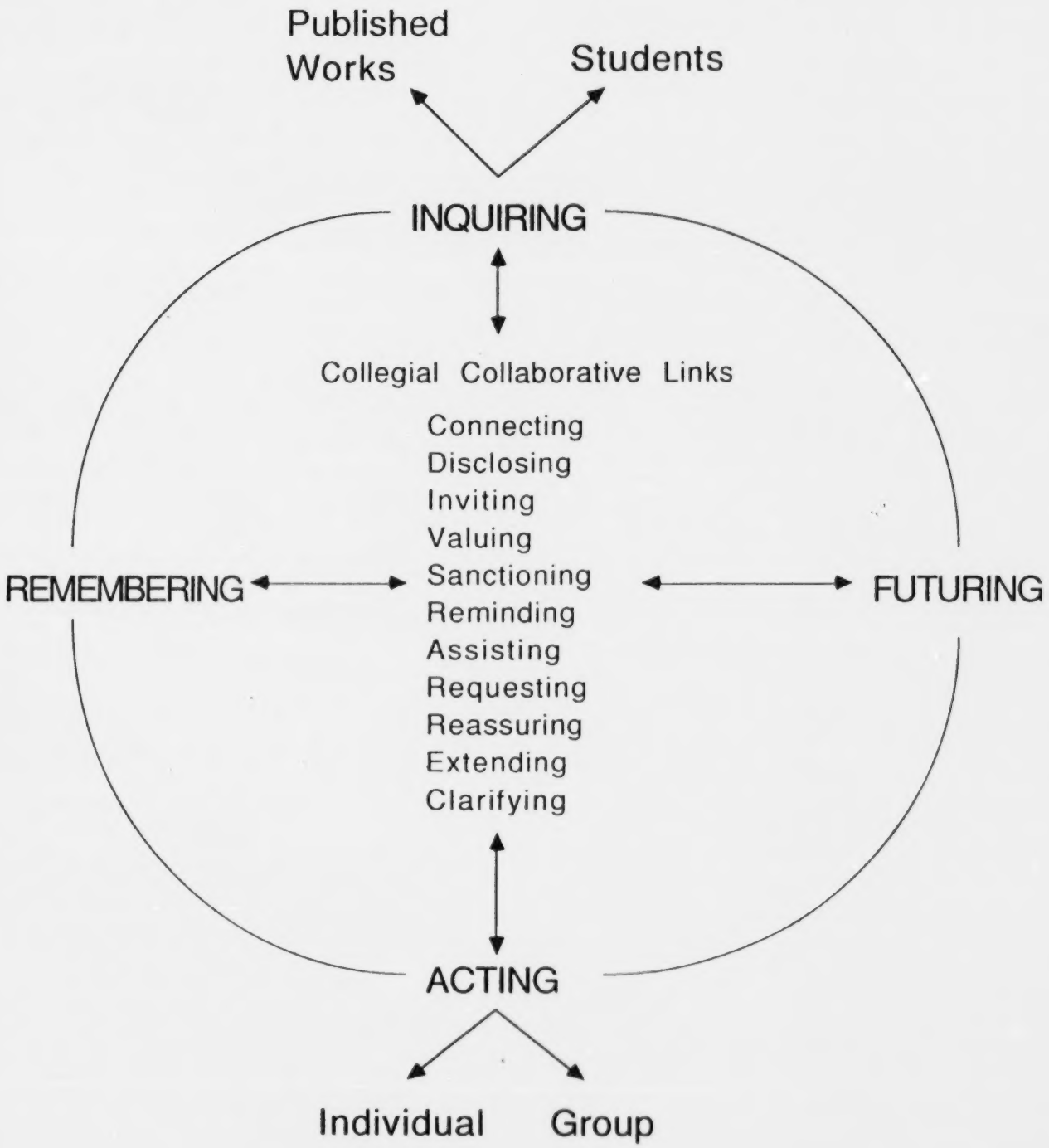
Figure Caption

Figure 1. Instructional reflection and decision-making cycle with collaborative links.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